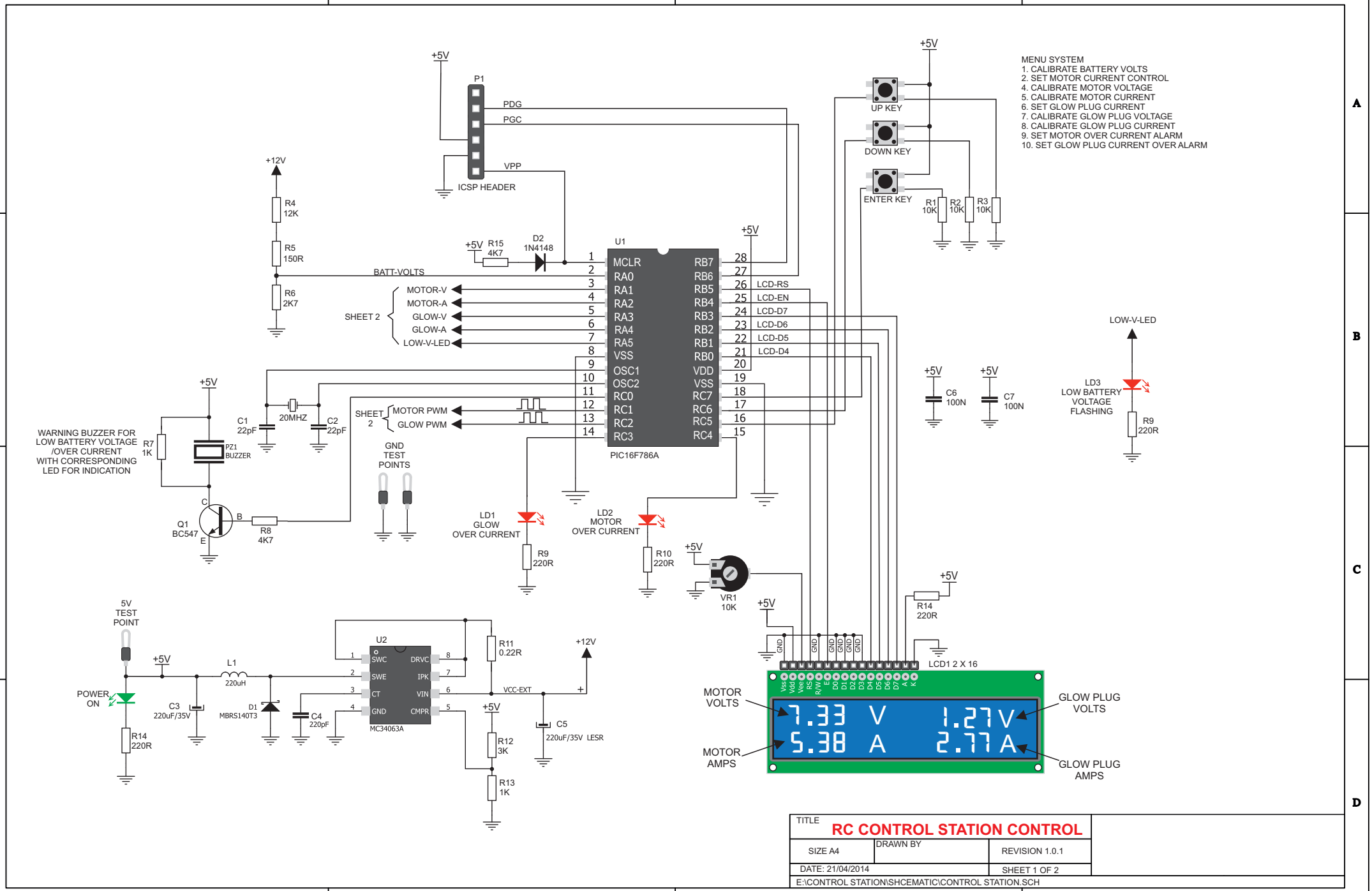
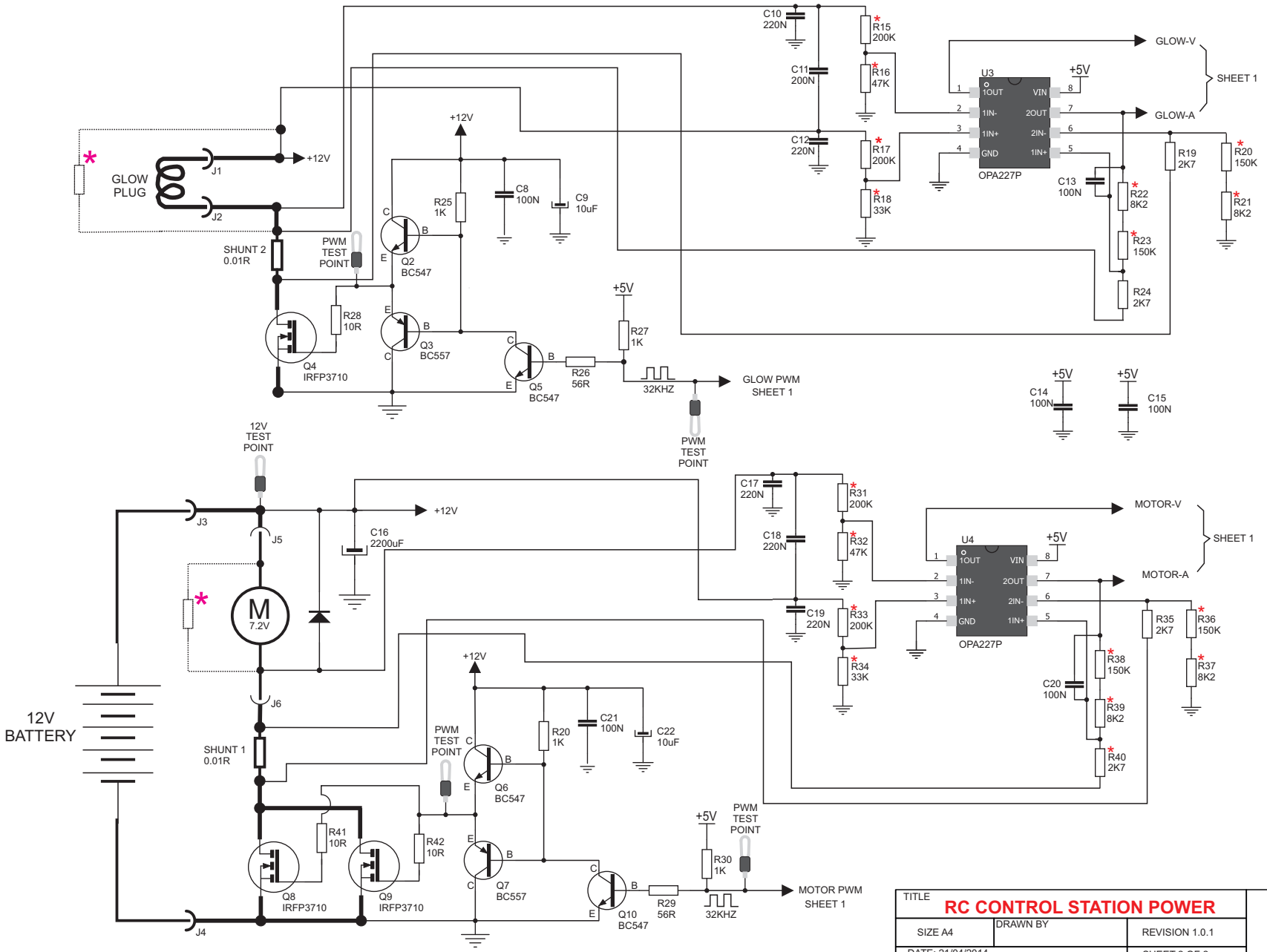

MENU SYSTEM
1. CALIBRATE BATTERY VOLTS
2. SET MOTOR CURRENT CONTROL
4. CALIBRATE MOTOR VOLTAGE
5. CALIBRATE MOTOR CURRENT
6. SET GLOW PLUG CURRENT
7. CALIBRATE GLOW PLUG VOLTAGE
8. CALIBRATE GLOW PLUG CURRENT
9. SET MOTOR OVER CURRENT ALARM
10. SET GLOW PLUG CURRENT OVER ALARM
P1
ICSP HEADER
PDG
PGC
VPP
+5V
+12V
UP KEY
DOWN KEY
ENTER KEY
R1 10K
R2 10K
R3 10K
R4 12K
R5 150R
R6 2K7
R15 4K7
D2 1N4148
BATT-VOLTS
U1
PIC16F786A
MCLR
RA0
RA1
RA2
RA3
RA4
RA5
VSS
OSC1
OSC2
RC0
RC1
RC2
RC3
RB7
RB6
RB5
RB4
RB3
RB2
RB1
RB0
VDD
VSS
RC7
RC6
RC5
RC4
SHEET 2
MOTOR-V
MOTOR-A
GLOW-V
GLOW-A
LOW-V-LED
MOTOR PWM
GLOW PWM
LCD-RS
LCD-EN
LCD-D7
LCD-D6
LCD-D5
LCD-D4
C1 22pF
20MHZ
C2 22pF
C6 100N
C7 100N
LOW-V-LED
LD3 LOW BATTERY VOLTAGE FLASHING
R9 220R
WARNING BUZZER FOR LOW BATTERY VOLTAGE /OVER CURRENT WITH CORRESPONDING LED FOR INDICATION
R7 1K
PZ1 BUZZER
Q1 BC547
R8 4K7
GND TEST POINTS
LD1 GLOW OVER CURRENT
R9 220R
LD2 MOTOR OVER CURRENT
R10 220R
VR1 10K
R14 220R
LCD1 2 X 16
Vss Vdd Vee RS R/W E D0 D1 D2 D3 D4 D5 D6 D7 A K
MOTOR VOLTS
MOTOR AMPS
GLOW PLUG VOLTS
GLOW PLUG AMPS
7.33 V
5.38 A
1.27V
2.77A
5V TEST POINT
POWER ON
R14 220R
L1 220uH
C3 220uF/35V
D1 MBRS140T3
C4 220pF
U2
MC34063A
SWC
SWE
CT
GND
DRVC
IPK
VIN
CMPR
R11 0.22R
VCC-EXT
R12 3K
R13 1K
C5 220uF/35V LESR
TITLE
RC CONTROL STATION CONTROL
SIZE A4
DRAWN BY
REVISION 1.0.1
DATE: 21/04/2014
SHEET 1 OF 2
E:\CONTROL STATION\SHCEMATIC\CONTROL STATION.SCH




* SMALL RESISTOR TO LOAD CIRCUIT TO MAINTAIN OUTPUT VOLTAGE VALUE NEEDS TO BE CONFIRMED

* VALUES TO BE CONFIRMED

| | | |
|---|---|---|
| TITLE | RC CONTROL STATION POWER | |
| SIZE A4 | DRAWN BY | REVISION 1.0.1 |
| DATE: 21/04/2014 | | SHEET 2 OF 2 |
| E:\CONTROL STATION\SHCEMATIC\CONTROL STATION.SCH | | APPROVED: NO NOT YET |